

Volume II A

Reports and Data Required by Federal Rule

Reports below are in the order of federal regulation. Federal requirements are in bold type and the Missouri Department of Natural Resources' response follows each requirement. Responses that are data tables will be found in the Attachments.

Note that tables are from the automated tracking system for the Gateway Clean Air Program called Data Record Access. The tables may contain several types of data and each may meet more than one federal record-keeping requirement. For some data requirements, two tables must be used, one for idle tests and another for transient (IM240) test information.

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER C--AIR PROGRAMS

PART 51--REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

SUBPART S--INSPECTION/MAINTENANCE PROGRAM REQUIREMENTS

§ 51.366 Data analysis and reporting.

Data analysis and reporting are required to allow for monitoring and evaluation of the program by program management and EPA, and shall provide information regarding the types of program activities performed and their final outcomes, including summary statistics and effectiveness evaluations of the enforcement mechanism, the quality assurance system, the quality control program, and the testing element. Initial submission of the following annual reports shall commence within 18 months of initial implementation of the program as required by § 51.373 of this subpart. The biennial report shall commence within 30 months of initial implementation of the program as required by § 51.373 of this subpart.

- (a) ***Test data report.*** The program shall submit to EPA by July of each year a report providing basic statistics on the testing program for January through December of the previous year, including:

The following responses cover data gathered from January through December 2001.

- (1) **The number of vehicles tested by model year and vehicle type;**

See Attachment 1 – Vehicles Tested Report.

(2) By model year and vehicle type, the number and percentage of vehicles:

(i) Failing initially, per test type;

See Attachment 2 – Vehicle Summary Report. Note: 1981 and newer vehicles in the enhanced area are tested with IM240 equipment. If they cannot be safely tested on the IM240 equipment, then they are tested with a two-speed idle test. All vehicles in the basic area and all 1971 to 1980 model year vehicles in the enhanced area are tested with a single-speed idle test.

(ii) Failing the first retest per test type;

See Attachment 3 – Initial Reinspection Idle Emissions Failure and Initial Reinspection Transient Emissions Failure Reports. Note: The Initial Reinspection Idle Emissions Failure Report includes both enhanced area and basic area vehicle test results.

(iii) Passing the first retest per test type;

See Attachment 4 – Initial Reinspection Idle Emissions Passed and Initial Reinspection Transient Emissions Passed Reports. Note: The Initial Reinspection Idle Emissions Passed Report includes both enhanced area and basic area vehicle test results.

(iv) Initially failed vehicles passing the second or subsequent retest per test type;

See Attachment 5 – Multiple Reinspection Idle Emissions Passed and Multiple Reinspection Transient Emissions Passed Reports. Note: The Multiple Reinspection Idle Emissions Passed Report includes both enhanced area and basic area vehicle test results.

(v) Initially failed vehicles receiving a waiver; and

See Attachment 2 – Vehicle Summary Report and Attachment 6 – Waiver Report.

(vi) Vehicles with no known final outcome (regardless of reason).

Data Record Access queries show that 9,436 unique vehicles were emission tested in the second year without a record of a passing inspection or a waiver. However, during this reporting period, this data was not verified against registration data. The department is working the Missouri Department of Revenue (DOR) to develop a mechanism for identifying these vehicles. No analysis of records or other action was taken to determine if registration requirements were circumvented or if these disappearing vehicles were relocated out of the St. Louis area or destroyed. If any of

these “disappearing” vehicles were relocated or destroyed, there is a positive air quality benefit for the St. Louis area.

In addition, there have been a substantial number of reports of license plate sticker theft in the St. Louis area. The number of such thefts in St. Louis is high, but not out of proportion to the other major metropolitan areas in Missouri. The Gateway Clean Air Program windshield sticker is secure inside the vehicle, but the registration sticker on the vehicle license plate designating a current registration can be stolen and all the registration requirements (emissions inspection, safety inspection, county property tax, and vehicle accident insurance) avoided by the illegal user. This issue could also account for the some of the disappearing vehicles.

(vii)-(x) [Reserved]

(xi) Passing the on-board diagnostic check;

(xii) Failing the on-board diagnostic check;

(xiii) Failing the on-board diagnostic check and passing the tailpipe test (if applicable);

(xiv) Failing the on-board diagnostic check and failing the tailpipe test (if applicable);

(xv) Passing the on-board diagnostic check and failing the I/M gas cap evaporative system test (if applicable);

(xvi) Failing the on-board diagnostic check and passing the I/M gas cap evaporative system test (if applicable);

(xvii) Passing both the on-board diagnostic check and I/M gas cap evaporative system test (if applicable);

(xviii) Failing both the on-board diagnostic check and I/M gas cap evaporative system test (if applicable);

For reporting requirements (xi) - (xviii), see Attachment 7 – Basic Area OBD II Report. Note: The Gateway Clean Air Program has been collecting this OBD information since the start of the program, but did not begin to use the OBD test as a pass/fail criteria during the 2001 reporting period. Furthermore, the data presented in this report reflects OBD information gathered under EPA’s 1998 OBD rulemaking requirements.

(xix) MIL is commanded on and no codes are stored;

- (xx) MIL is not commanded on and codes are stored;
- (xxi) MIL is commanded on and codes are stored;
- (xxii) MIL is not commanded on and codes are not stored;
- (xxiii) Readiness status indicates that the evaluation is not complete for any module supported by on-board diagnostic systems;

For reporting requirements (xix) - (xxiii), see Attachment 8 – Basic Area MIL Versus Codes OBD II Report. Note: The Gateway Clean Air Program has been collecting this OBD information since the start of the program, but did not begin to use the OBD test as a pass/fail criteria during the 2001 reporting period. Furthermore, the data presented in this report reflects OBD information gathered under EPA’s 1998 OBD rulemaking requirements.

- (3) The initial test volume by model year and test station;
- (4) The initial test failure rate by model year and test station; and

For reporting requirements (3) and (4), see Attachment 9 – Initial Test Volume, Initial Failure Rate by Vehicle Type and Initial Inspection Detail Reports. Note: In the Initial Inspection Detail Report, Stations 1-10 are located in the enhanced area and Stations 11-16 are located in the basic area. Stations 15 and 16 represent the mobile testing units that rotate between six Franklin County sites each week.

- (5) The average increase or decrease in tailpipe emission levels for HC, CO, and NOx (if applicable) after repairs by model year and vehicle type for vehicles receiving a mass emissions test.

See Attachment 10 – Repair Emissions Reduction Report. Values that are enclosed in parentheses represent an increase, not a decrease, in the average tailpipe emissions for a particular model year and vehicle type. A value in parentheses indicates that, on average, the repairs for that model year and vehicle type were ineffective. While some model years and vehicle types received ineffective repairs during the reporting period, the Gateway Clean Air Program is showing a net reduction in tailpipe emissions.

- (b) ***Quality assurance report.*** The program shall submit to EPA by July of each year a report providing basic statistics on the quality assurance program for January through December of the previous year, including:

A tracking system for recording the type and number of audits and inspections performed by department staff was not in place until July 1, 2001. Department staff were in the stations on a regular basis prior to July 1, 2001, observing station staff performance and developing an understanding of the operational control processes developed by the contractor. Department

and contractor management discussed areas of concern and corrected these areas of concern as necessary throughout the calendar year, without formal documentation of the proceedings always being produced. The numbers below represent inspections performed after July 1, 2001.

(1) The number of inspection stations and lanes operating throughout the year:

(i) Operating throughout the year;

The Gateway Clean Air Program station network consists of ten enhanced test stations with a combined total of 35 lanes and two basic test stations in Franklin County with a combined total of six lanes. In addition to these 41 permanent test lanes, two mobile testing units rotate each week between six sites in Franklin County.

The Gateway Clean Air Program RapidScreen network consists of five RapidScreen vans rotated among at least 50 sites throughout the reporting period. For more information about the RapidScreen network in 2001, see Volume III A of this report.

(ii) Operating for only part of the year;

Except for lane closures for mechanical problems, no station or lane was operated for only part of the year. However, lanes that were actually operational may not have been used during days with low test volumes of vehicles presented for testing. During days with low test volumes, lanes were opened and operated as test volume dictated.

A few station closures due to weather-related incidents did occur. For example, due to heavy winds, a few stations suffered electrical power outages. In addition, the mobile testing units in Franklin County were occasionally closed due to tornado warnings, severe windchills (-25 °F) or heat indices (+100 °F).

(2) The number of inspection stations and lanes operating throughout the year:

(i) Receiving overt performance audits in the year;

127 overt performance audits were completed during the reporting period.

The department conducts several types of overt audits: Level I, Level IIa, Level IIb, and Level III.

Level I audits:

- Are customer-oriented and primarily look at Lane Performance from the perspective of Lane Inspector Proficiency in both test procedure performance and customer service;

- Are triggered by customer complaints that often are tied to misperceptions or misunderstandings about the test process;
- Provide opportunities for department outreach to the public and assurance that lane performance is as it is supposed to be; and
- Incorporate facility reviews with a focus toward accommodating able-bodied and disabled customers.

Level IIa audits:

- Are lane performance-oriented as both overt and covert personnel audits are performed.
- Are analytical and mechanical equipment performance oriented. Department auditors are responsible for the quality assurance and quality control of the emissions testing process.

Level IIb audits:

- Are primarily station-oriented and focus on data collection and analysis. The information analyzed during a Level IIb audit may be located within the program's Data Record Access system, or may be the result of field investigations and external manual data logging.
- Involve audits of the repair industry data. In order to prevent vehicle repair fraud, department auditors are responsible for this consumer protection element of the Gateway Clean Air Program.

Level III audits:

- Incorporate the features of Level I and II audits; and
- Include functional tests of equipment, station performance data analysis (both electronic and paper-based), document security audits, and personnel audits.

The Enhanced and Basic Area stations (all lanes) received 18 Level I audits. All station lanes and mobile units received 86 Level IIa audits. There were 19 program-wide or special audits at Level IIb. There were zero Level III audits performed during the reporting period, primarily due to the time the department staff took to develop an understanding of the contractor's operational control systems prior to auditing stations for compliance. The Level III audits encompass total station operations – staff performance of test procedures and customer service; maintenance schedules and documentation; and security measures, for both emission certificates and waiver process. Level I and Level II reports will be utilized to generate Level III documents.

(ii) Not receiving overt performance audits in the year;

None. All stations and lanes received overt performance audits during this period.

(iii) Receiving covert performance audits in the year;

The Department conducts several types of covert audits: Level I and Level IIa. The criteria are the same as those for Overt Audits, although the methods vary. Covert vehicles, videotape reviews, and surveillance are the primary methods auditors used. Lane audits monitored test performance criteria as well as customer service concerns for each lane with all the staff involved – meaning two to three lane staff were audited for each single report.

93 covert performance audits were performed on the enhanced and basic test stations and the RapidScreen vans. In addition, videotape review of the enhanced test lanes and random checks of the toll-free information line were performed.

Department covert vehicles used by staff became available during the last quarter of the period covered by this report. State covert vehicle usage was minimal because the contractor experienced software problems that did not allow a vehicle to be tested multiple times without a record of the previous test being noted on the lane staff's computer screen. Private vehicles owned by St. Louis Regional Office staff were utilized to perform covert audits. These covert audits encompassed Level IIa audit procedures, which are lane staff performance-oriented and consist of equipment and personnel observations to evaluate quality control. These covert audits were also performed in response to citizen complaints about test procedures or customer service at the test facility.

In addition to on-site covert audits, department audit staff reviewed videotapes made each day for each of the enhanced and basic station lanes. Customer complaints, concerns raised by Data Record Access reviews, and regular random reviews of one or more videotapes from each station were performed.

Department covert audit staff also conducted remote surveillance of the operations of all test facilities and the Franklin County mobile emission test vans.

Department staff throughout this period covertly audited the RapidScreen remote sensing vans. These audits consisted of program staff driving to and through the announced RapidScreen van locations. These audits verified the RapidScreen vans were on site and operating at the times the contractor had agreed upon. Verification that vehicle test data had been collected was provided by the contractor through visual observation of the data base.

Department staff called the toll-free information line to audit both the message being delivered and the operator's knowledge as judged by responses to questions similar to those asked by citizens.

Quality Assurance audits were performed when motorists questioned the test process or perceived problems at the station. State staff physically audited the test process to provide the motorist quality assurance. The majority of these audits confirmed the management and lane staff performed the test procedure correctly, and that it was the

motorist's perception of what was occurring which led to the complaint. Managers and lane staff were verbally informed of any procedural or customer service issues found to be in their control. The Operations Manager who oversees all of the stations for the contractor was also informed of any outstanding issues with the test process and responded with appropriate policy guidelines and staff training.

The department's St. Louis Regional Office continues to work hard in preparation to conduct covert auditing. The office aggressively sought to hire staff, including environmental specialists and motor mechanics. The department also planned for the construction and lease of a Technical Service Center. The facility design has a complete IM240 test lane of the exact same type used in the enhanced stations and a work bay with a vehicle lift. The facility will be available to the public for emission test verification, or referee purposes if motorists have questions about the validity or accuracy of the tests performed at the test stations. It will also be used for staff and repair technician educational purposes, as well as the staging of covert vehicles. The Request for Proposals for the construction of this facility was let to a contractor during this reporting period, with anticipated completion in 2002.

(iv) Not receiving covert performance audits in the year; and

None. All stations received some form of covert performance audit.

(v) That have been shut down as a result of overt performance audits;

Overt audits conducted by the department staff on lane equipment resulted in equipment being taken out of service due to calibration concerns. The lanes are serviced by contractor technicians and generally reopened within a short time.

(3) The number of covert audits:

(i) Conducted with the vehicle set to fail per test type;

(ii) Conducted with the vehicle set to fail any combination of two or more test types;

In response to reporting requirements (i) - (ii), department audit staff were unable to perform covert audits using vehicles with failing emission levels. There were instances of a state employee's vehicle failing. Test facility lane staff were observed performing the necessary test and tamper inspections and customer service procedures established by the EPA, the state and the contractor.

The Technical Service Center had not been constructed during this time period, and the motor mechanics needed to perform the vehicle staging aspects of covert auditing had not been hired during the reporting period.

(iii) Resulting in a false pass per test type;

(iv) Resulting in a false pass for any combination of two or more test types;

In response to reporting requirements (iii) - (iv), no false passes were received during covert audits performed on non-department vehicles owned by St. Louis Regional Office staff.

(v)-(viii) [Reserved]

(4) The number of inspectors and stations:

Note: Reporting requirements (4) through (7) apply primarily to decentralized, or test and repair, I/M programs, while the Gateway Clean Air Program is a centralized, or test only, I/M program. Because the department has a contract with one company that operates all of the testing stations, the department does not take action against specific inspectors or individual stations. Instead, the department works with the contractor to resolve all issues revealed during quality assurance audits. That said, the department has responded to reporting requirements (4) through (7) as they apply to the Gateway Clean Air Program.

(i) That were suspended, fired, or otherwise prohibited from testing as a result of covert audits;

The covert audits conducted by the department did not result in any inspectors being suspended or fired or in any stations from being prohibited from testing.

(ii) That were suspended, fired, or otherwise prohibited from testing for other causes; and

The contractor regularly took action with employees who behaved inappropriately or unprofessionally. Such behavior included discourtesy to customers, incorrectly following test procedure and fraud concerning the test or test fee collection. Where appropriate, the department supplemented these personnel actions with evidence of wait time fraud and/or poor job performance. In most cases, the contractor retrained their employees. In a few cases, station staff were fired by the contractor.

(iii) That received fines;

The department cannot fine inspectors or stations. Instead, the department asks the state's contract officer, known as the Buyer of Record, to assess liquidated damages for excursions from the requirements of the contract. No liquidated damages were assessed for contractual violations that occurred during the reporting period.

(5) The number of inspectors licensed or certified to conduct testing;

In total, ESP Missouri employed a total of 508 station staff for 250 positions during the second year of operation. The number of inspectors varied considerably throughout the reporting period. The nature of the work, the pay scale offered, and the seasonal vehicle registration rates lead to employee turnover, although the turnover rate is decreased from the previous year. Busy periods and adverse weather occasionally corresponded with high number of station staff resignations. The contractor ran bi-monthly training sessions during the reporting period to recruit new staff and maintain optimum staff levels.

The department does not currently license or certify the emission test facility management staff or inspectors. The contractor is required to employ and train individual inspectors. The department has approved the training program contents and duration of training, specific to the job (Station Managers, Lead Lane Inspectors, and Lane Inspectors). Department staff attended training courses to ensure compliance with the contract and department goals. Employees successfully completing classroom or self-directed computer-assisted training and in-lane IM240 trace driving training and practice became certified lane inspectors.

(6) The number of hearings:

(i) Held to consider adverse actions against inspectors and stations; and

(ii) Resulting in adverse actions against inspectors and stations;

The department did not hold hearings for violations noted by inspectors. When violations of contract, rule, or test procedures are noted by the department, contractor management is notified. The contractor takes the disciplinary action they feel is appropriate against any employee that is not following company policy or contract guidelines.

The department does have the authority to request retraining or dismissal of employees found to be not following policies and procedures established by the contractor. However, the department did not make any such requests during the reporting period.

(7) The total amount collected in fines from inspectors and stations by type of violation;

The department does not collect fines from individual inspectors or stations for contractual violations. Instead, liquidated damages are sought from the contractor as described in section (4) (iii) above. No liquidated damages were collected during the reporting period.

(8) The total number of covert vehicles available for undercover audits over the year; and

There were five (5) department owned vehicles used to perform covert audits this reporting period.

(9) The number of covert auditors available for undercover audits.

During this reporting period, the department employed three Environmental Specialists, to perform covert audits on operations at the stations.

(c) *Quality control report.* The program shall submit to EPA by July of each year a report providing basic statistics on the quality control program for January through December of the previous year, including:

(1) The number of emission testing sites and lanes in use in the program;

The Gateway Clean Air Program station network consists of ten enhanced test stations with a combined total of 35 lanes and two basic test stations in Franklin County with a combined total of six lanes. In addition to these 41 permanent test lanes, two mobile testing units rotate each week between six sites in Franklin County. The Gateway Clean Air Program RapidScreen network consists of five Rapid Screen vans rotated among at least 50 sites throughout the reporting period.

Other than unpredicted closures due to mechanical failures or weather incidents, lanes that were actually operational may not have been used during days with low test volumes of vehicles presented for testing. During days with low test volumes, lanes were opened and operated as test volume dictated.

(2) The number of equipment audits by station and lane;

Department auditors participated in acceptance testing on all software versions released during the 2001 calendar year. Software is routinely audited and all new software issues are screened following *ad hoc* acceptance test procedures.

All lanes and mobile units received Level IIa audits. There were 24 program-wide or special audits at Level IIb. There was zero Level III audits performed. Test equipment in the lanes and on the RapidScreen remote sensing vans were audited 44 times during this period.

(3) The number and percentage of stations that have failed equipment audits; and

Of the 194 equipment audits performed on 10 enhanced test stations with 35 lanes, five percent of the audits were considered failures. These 10 failed equipment audits occurred at 50 percent of the enhanced test stations.

Department auditors found that the contractor was responsive to replacing or maintaining faulty equipment in response to system flags or other performance history as noted in the statistical process control data. The contractor also responded to auditor recommendations related to equipment condition (e.g. condition of hoses, filters, tachometers, cabinet operating temperatures, etc.) in a timely manner.

(4) Number and percentage of stations and lanes shut down as a result of equipment audits.

The contractor either closed lanes or did not open lanes that could not be correctly calibrated or that could not pass audits. The contractor reopened these lanes after successful repairs and the test equipment passed functionality checks. No lanes or stations were shut down as a result of department equipment audits.

(d) *Enforcement report.*

(1) All varieties of enforcement programs shall, at a minimum, submit to EPA by July of each year a report providing basic statistics on the enforcement program for January through December of the previous year, including:

(i) An estimate of the number of vehicles subject to the inspection program, including the results of an analysis of the registration database;

The department analyzed the DOR's vehicle registration database prior to the start of the Gateway Clean Air Program. The department estimated that 1.28 million vehicles were subject to the Gateway Clean Air Program.

(ii) The percentage of motorist compliance based upon a comparison of the number of valid final tests with the number of subject vehicles;

For the reporting year, 745,419 initial emission tests, including station-based tests and RapidScreen redemptions, were performed. These tests include vehicle transfers (used vehicles sold and required to be reinspected) and some federal, state and local government fleet vehicles that are not on the registration database (less than 1,000). These tests also include a small number of vehicle owners that were confused by the biennial test cycle in the enhanced area and tested even model vehicles in 2001.

Assuming that roughly half of the 1.28 million vehicles should have been emission inspected during the first year of the Gateway Clean Air Program, then 640,000 vehicles should have received an emission test, assuming no vehicles are sold to a new owner. Since 745,419 vehicles were tested, the percentage of motorist compliance was 116.5 percent.

The reason that the compliance rate exceeds 100 percent is that even model year vehicles in the enhanced area with January through April registrations were given

temporary extensions until later in 2000. In some cases, however, these even model year vehicles were not emission tested in 2000. Due to DOR's effort to ensure vehicle compliance with the emission inspection requirement, even model year vehicles were required to show proof of an emission inspection in 2000 in order to be registered in 2001. Those even model year vehicles that were not emission inspected in 2000 were required to obtain an emission inspection in 2001. It is not clear what portion of the 16.5 percent is made up of these vehicles, and what portion of the 16.5 percent is made up of transfer of ownership vehicles.

(iii) The total number of compliance documents issued to inspection stations;

During the reporting period, 844,000 compliance documents were issued to inspection stations. At the end of the reporting period, 23,547 compliance documents were unused.

There are two types of compliance documents: VTRs and mini-VTRs.

- The contractor distributes Vehicle Test Reports (VTR) and window stickers to all of the stations for station-based tests. VTR forms are issued to motorists for each vehicle tested at a station, regardless of test result (pass, fail, waiver). However, window stickers are only issued for vehicles that pass the emission test or receive a waiver.
- Mini-VTR forms are printed, inventoried, and mailed to motorists for each vehicle that completes the RapidScreen process. After receiving payment, the contractor mails mini-VTRs and window stickers to motorists who redeem their RapidScreen notifications from an out-of-state printing house.

(iv) The number of missing compliance documents;

During the reporting period, there were no missing compliance documents. The contractor is responsible for compliance document security. The security measures include the following:

Design: The VTR forms are designed so that fraudulent duplication is quite difficult.

- a) The test-specific information is printed on the VTR form in a different color than the pre-printed information, so photocopies are easily identifiable.
- b) The test-specific information includes bar coded information, which is difficult to simulate.
- c) The VTR forms are serially numbered, so that each form is unique.

Transport: The transport of VTR forms from the company that prints the forms to ESP Missouri's headquarters to the individual test stations is tracked via a chain of custody system.

Use: a) The VTRs are stored in locked printer cabinets or in locked rooms while they are at the test stations. b) A tracking log is used to ensure that every lane

inspector accounts for every VTR issued from their lane. c) The contractor conducts random internal audits to ensure that the daily tracking logs are being maintained and that the VTR forms are being securely stored.

(v) The number of time extensions and other exemptions granted to motorists; and

Time extensions are given by the DOR for vehicles located in another state at the time of registration renewal. Motorists with these vehicles are allowed to renew their registrations via mail, but must have the vehicle emission inspected within 10 days of returning to the St. Louis area. The number of Out of State extensions granted was not tracked by the DOR during the reporting period.

Some vehicles are subject to an emission inspection requirement because of the county where the vehicle is property taxed, but are exclusively operated outside the ozone nonattainment area. Examples include vehicles used by family members away at college or on vacation or farm property outside of the St. Louis area. Out of Area Waivers, valid for the period of registration, are given to motorists of such vehicles. During the reporting period, 169 Out of Area Waivers were granted by the department to vehicles from the enhanced area. The number of Out of Area Waivers granted to vehicles from the basic area were not tracked by the DOR during the reporting period.

For information regarding these statutory extensions and exemptions and the forms needed for these cases, please visit the following website: <http://www.gatewaycleanair.com/needtest/outside.htm>.

(vi) The number of compliance surveys conducted, number of vehicles surveyed in each, and the compliance rates found.

No parking lot surveys or other compliance checks were conducted during the reporting period. The compliance rate is assumed to be 96.0 percent.

(2) Registration denial based enforcement programs shall provide the following additional information:

(i) A report of the program's efforts and actions to prevent motorists from falsely registering vehicles out of the program area or falsely changing fuel type or weight class on the vehicle registration, and the results of special studies to investigate the frequency of such activity; and

During the reporting period, no specific efforts or actions were taken to prevent motorists from avoiding the emission inspection requirement. While the department cannot quantify the frequency of falsely registered vehicles, the department is comfortable with the security of the registration-denial system described below.

To register a gasoline-powered passenger vehicle in the St. Louis area, proof of compliance with the emissions testing program (a VTR from a station-based test or a mini-VTR from a RapidScreen test) must be presented to the vehicle registration office. Vehicle registration is denied if such proof is not provided.

The DOR's Motor Vehicle and Driver's Licensing Division oversees both state-run licensing branch offices and "fee offices" run by private business under contract to DOR. An official DOR policy memo, reviewed and approved by the department, has been sent to all branch and fee offices that describes the registration procedures for all vehicles subject to the Gateway Clean Air Program. License clerks in these offices are trained on the requirements of the emissions test program and on recognition of legitimate certificates.

Vehicles with gross vehicle weight ratings over 8,500 pounds Gross Vehicle Weight Rating (GVWR) are exempted from the emission inspection requirement if the motorist shows proof to license clerks on either a vehicle refusal form from the emission test station or on a state safety inspection certificate.

(ii) The number of registration file audits, number of registrations reviewed, and compliance rates found in such audits.

The department did not audit or review any registration files during this reporting period. The DOR conducted audits of 10 fee offices and one branch office in the St. Louis area during the reporting period, although not with the Gateway Clean Air Program specifically in mind. There were no problems found at these offices.

(3) Computer-matching based enforcement programs shall provide the following additional information:

The Gateway Clean Air Program is not enforced with a computer-matching system, although the contractor sends the DOR vehicle test results for all passing (station-based and RapidScreen) and waived vehicles. This information is then made available to all vehicle registration offices on a main-framed Emission Verification System that serves as a backup confirmation system should a motorist lose their vehicle's emission test results after the test but before registering their vehicle.

- (i) The number and percentage of subject vehicles that were tested by the initial deadline, and by other milestones in the cycle;**
- (ii) A report on the program's efforts to detect and enforce against motorists falsely changing vehicle classifications to circumvent program requirements, and the frequency of this type of activity; and**

- (iii) The number of enforcement system audits and the error rate found during those audits.
- (4) Sticker-based enforcement systems shall provide the following additional information:

The Gateway Clean Air Program is not enforced with a sticker-based system, although a windshield sticker is issued to vehicles that pass an emissions test (station-based or RapidScreen) or receive a waiver. The purpose of the windshield sticker is to assist law enforcement officers in registration confirmation during other traffic stops. The sticker also will allow the department to conduct random parking lot surveys and government fleet compliance rate analysis.

- (i) A report on the program's efforts to prevent, detect, and enforce against sticker theft and counterfeiting, and the frequency of this type of activity;
 - (iii) A report on the program's efforts to detect and enforce against motorists falsely changing vehicle classifications to circumvent program requirements, and the frequency of this type of activity; and
 - (iv) The number of parking lot sticker audits conducted, the number of vehicles surveyed in each, and the noncompliance rate found during those audits.
- (e) *Additional reporting requirements.* In addition to the annual reports in paragraphs (a) through (d) of this section, programs shall submit to EPA by July of every other year, biennial reports addressing:
 - (1) Any changes made in program design, funding, personnel levels, procedures, regulations, and legal authority, with detailed discussion and evaluation of the impact on the program of all such changes; and

During the 2000-2001 reporting period, no changes in program design, funding, personnel levels, procedures, regulations, or legal authority occurred.

- (2) Any weaknesses or problems identified in the program within the two-year reporting period, what steps have already been taken to correct those problems, the results of those steps, and any future efforts planned.

During the 2000-2001 reporting period, the existing waiver requirements were identified as a weakness in the program design. The waiver requirements were established by state statute in 1994 and set the following minimum spending amounts in the enhanced area: 1971-1980 model years, \$75; 1981-1996 model years, \$200, 1997 and newer model year vehicles, \$450. These requirements were preventing many vehicles from being fully repaired, because many motorists were choosing to spend the minimum amount

necessary to qualify their failing vehicle for a waiver without insisting on repairs that actually decreased the vehicle's tailpipe emissions. As a result, 20 percent, or one in five, of the failed vehicles received a waiver during the reporting period. This waiver rate exceeded the State Implementation Plan goal of an eight percent waiver rate. The department began to address this problem by initiating a rulemaking to consider the amendment of the waiver requirements during the reporting period. This rulemaking was not completed until the next reporting period.

Also during the reporting period, the financial burden that vehicle repairs place on low income motorists was identified as a weakness in the program design. As a result, the department applied for and received a \$2.5 million Congestion Mitigation and Air Quality (CMAQ) grant through the St. Louis metropolitan planning organization. The purpose of the grant was to offer repair vouchers worth up to \$450 in vehicle repairs to individuals whose income was less than 175 percent of the federal poverty limit and were screened via an application process. The Vehicle Emission Repair Assistance (VERA) Program began in March 2001 and lasted into the next reporting period.

(f) *SIP requirements.* The SIP shall describe the types of data to be collected.

The department submitted its I/M State Implementation Plan (SIP) to the EPA on November 11, 1999. The I/M SIP was approved by the EPA on May 18, 2000. No further SIP revisions were submitted during the reporting period.

§ 51.371 On-road testing.

On-road testing is defined as the measurement of HC, CO, NO_x, and/or CO₂ emissions on any road or roadside in the nonattainment area or the I/M program area. On-road testing is required in enhanced I/M areas and is an option for basic I/M areas.

(a) *General requirements.*

- (1) On-road testing is to be part of the emission testing system, but is to be a complement to testing otherwise required.**

The Gateway Clean Air Program conducts an on-road testing program in conjunction with RapidScreen, the clean screening element of the Gateway Clean Air Program.

- (2) On-road testing is not required in every season or on every vehicle but shall evaluate the emission performance of 0.5% of the subject fleet statewide or 20,000 vehicles, whichever is less, including any vehicles that may be subject to the follow-up inspection provisions of paragraph (a)(4) of this section, each inspection cycle.**

The RapidScreen element collected 4.9 million vehicle records during the second year of operation.

- (3) The on-road testing program shall provide information about the emission performance of in-use vehicles, by measuring on-road emissions through the use of remote sensing devices or roadside pullovers including tailpipe emission testing. The program shall collect, analyze and report on-road testing data.**

The results of the on-road testing are described in Volume III A, the 2001 RapidScreen Report.

- (4) Owners of vehicles that have previously been through the normal periodic inspection and passed the final retest and found to be high emitters shall be notified that the vehicles are required to pass an out-of-cycle follow-up inspection; notification may be by mailing in the case of remote sensing on-road testing or through immediate notification if roadside pullovers are used.**

Although the Gateway Clean Air Program is an enhanced I/M program, the St. Louis nonattainment area (St. Louis was a nonattainment area during the reporting period) is only required to meet the basic I/M performance standard. Therefore, while the Gateway Clean Air Program is collecting, analyzing, and reporting on-road information in the 2001 RapidScreen Report, owners of vehicles identified as high emitters have not, to date, been notified or required to bring their vehicle to an emission test station for an out-of-cycle test.

(b) *SIP requirements.*

- (1) The SIP shall include a detailed description of the on-road testing program, including the types of testing, test limits and criteria, the number of vehicles (the percentage of the fleet) to be tested, the number of employees to be dedicated to the on-road testing effort, the methods for collecting, analyzing, utilizing, and reporting the results of on-road testing and the portion of the program budget to be dedicated to on-road testing.**

These details are described in the 2001 RapidScreen Report. Because the contractor, not the department, runs the on-road testing element in conjunction with the RapidScreen element as part of their contractual obligation, no budget numbers are given in the 2001 RapidScreen Report.

- (2) The SIP shall include the legal authority necessary to implement the on-road testing program, including the authority to enforce off-cycle inspection and repair requirements.**

The department has the statutory authority to collect on-road information. Currently, the department does not have the statutory authority to enforce off-cycle inspection and repair requirements.

- (3) Emission reduction credit for on-road testing programs shall be granted for a program designed to obtain significant emission reductions over and above those already predicted to be achieved by other aspects of the I/M program. The SIP shall include technical support for the claimed additional emission reductions.**

The department did not claim any additional emission reduction credit from the on-road testing program, because owners of vehicles identified as high emitters have not, to date, been notified or required to bring their vehicle to an emission test station for an out-of-cycle test.